Spring 2010

CEG 726-01: Pattern Recognition

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CEG-726 Pattern Recognition

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CRN: 39057 **Lecture:** 2:15 – 3:30,T, R, **Location:** 036 RH
Instructor: A. Goshtasby **Office Location:** 495 Joshi **Phone:** 937-775-5170
Email: agoshtas@wright.edu **Office Hours:** 1:00 – 2:00 PM, M, T, W, R or by appoint.

No. Units: 4

Prerequisites: A course in probability theory and knowledge of programming

Textbook:

Pattern Recognition, 4th Edition
S. Theodoridis and K. Koutroumbas
Academic Press, 2009

Contents:

1. Introduction and Preliminaries
2. Feature Generation
3. Dimensionality Reduction
4. Feature Selection
5. Clustering Basics
6. Hierarchical Clustering Algorithms
7. Sequential Clustering Algorithms
8. Bayesian Decision Theory
9. Parameter Estimation

Purpose of Course:

This course will discuss fundamentals of Pattern Recognition, including supervised learning and clustering.

Learning Goals:

Students will learn theory as well as practice in this course. Some of the materials learnt in class will be practiced through computer implementation.

Projects:

There will be three projects and three quizzes. Each project will require implementation of a pattern recognition/classification method.

Grading Policy:

The projects will worth 50 points and the quizzes will worth 50 points. Grades will be assigned as follows. A: [91..100], B: [81..90], C: [71..80], D: [61..70], F: [0..60].

Calendar:

Project 1	Handed out: 4/8	Due: 4/22
Project 2	Handed out: 4/27	Due: 5/11
Project 3	Handed out: 5/13	Due: 5/27

Quizzes will be on 4/15, 5/4, and 5/20.